

Amendments to the CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1- 15. (Canceled)

16. (Currently Amended) The method of claim 17 wherein said levels assigned are “LOW”, “BELOW GOAL”, “ABOVE GOAL”, and “HIGH”, wherein a performance parameter is HIGH if its value is greater than the maximum operating limit; a performance parameter is ABOVE GOAL if its value is less than the maximum limit and greater than the goal; a performance parameter is BELOW GOAL if its value is less than the goal but greater than the low limit; and a performance parameter is LOW if its value is less than the ~~minimum~~ low limit.

17. (Currently Amended) The method of claim 18 wherein said comparison step includes the assignment of a level based upon the relationship between said calculated HVAC operational variables and said stored HVAC system parameters.

18. . (Currently Amended) A method of providing diagnostics of a refrigeration system, the refrigeration system including a compressor, a condenser, an expansion device, and an evaporator connected together, the method comprising:

determining the type of expansion device used in the refrigeration system;

storing a plurality of HVAC system parameters that have been pre-defined for a particular

refrigeration system and type of expansion device used;

defining a plurality of diagnostic messages based on said particular refrigeration system;

measuring at least five but not more than nine HVAC system variables;

calculating various HVAC operational variables including superheat based on the

measurement of said at least five HVAC system variables;

comparing the calculated HVAC operational variables to said stored HVAC system

parameters; and

conveying at least one of said plurality of diagnostic messages to a person performing

said diagnostics;

~~The method of claim 11~~ wherein if it is determined during said determining step that said expansion device is a thermal expansion valve, the superheat is fixed at 20° F.

19. (Canceled)